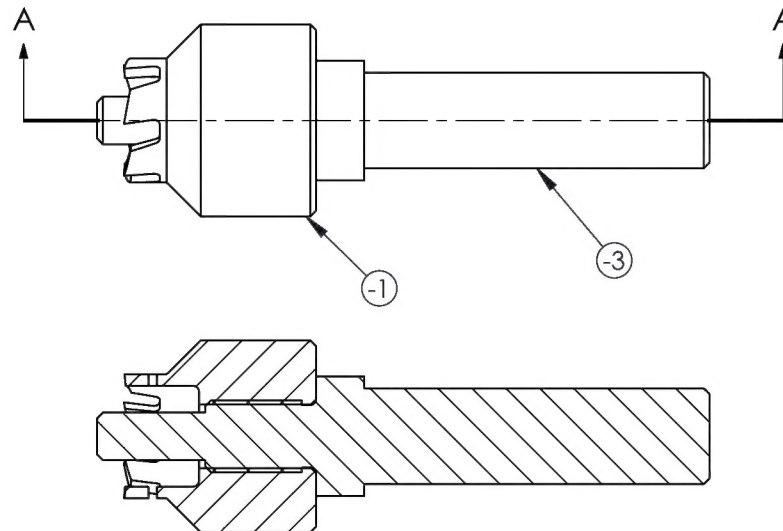


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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		CH'D ARBOR THREAD LENGTH FROM .625, ALL GDT'S FROM .001, AND ADDED ENGRAVE P/N.	12/27/07	WP	DW
2		CH'D TO A CHART FORMAT TO ACCOMMODATE MULTIPLE CUTTERS.	2/5/08	WP	DW
3		WIDENED CUTTER TOOTH FROM .045 TO .060, CH'D 4101-7 FROM 6 TO EIGHT TEETH.	4/28/08	WP	DW
4		CH'S ALL TOOL No.'S FROM KSC TO RBSC, ADDED RBSC4101-6 AND RBSC4103-6. CH'D -3 C-BORE DEPTH FROM .438 TO VARIABLE C: A2 THREAD DEPTH FROM 1.125 TO .50 +C. -5 ADDED C-BORE DEPTH WAS MISSING AND ADDED FLANGE END TO KEEP -5 OUT OF -1 CUTTER'S THREADS. ALSO CREATED Pg. 5 AND REMOVED -7 FROM Pg. 4 TO Pg. 5. CH'D -7 FROM A SOCKET HEAD CAP SCREW TO A SOCKET HEAD SHOULDER BOLT. ALSO ADDED ØA TO BE MACHINED FOR CLEARANCE OF -5 GUIDE.	10/12/09	WP	DW
5		-5 ADDED COLUMN F & G IN TABLE.	8/29/11	RJC	SE
6	15-0030	ADDED BEARINGS MS14101-3, -5, -8, -9, -10, -12, -14, -16, MS14103-3, -4, -5, -7, -7A, -8, -9, -10, -12, -14, -16, -1. ADDED ALL NEW TOOL NUMBERS AND UPDATED TABLE. DELETED TABLE COLUMNS D, E, F, MATERIAL AND BEARING O.D. ADDED COLUMN G AND #OF TEETH COLUMNS -3 ADDED ALL NEW TOOL NUMBERS AND UPDATED TABLE. DELETED TABLE COLUMNS BEARING #, ARBOR TYPE, ØA1, ØA2, ØB C-BORE, C, AND MATERIAL. ADDED COLUMN ØA, ØB AND C THREAD COLUMNS. DELETED -5, -7, AND ARBOR TYPE II.	2/12/2015	RJC	JAG

BEARING #	TOOL #
MS14101-3	RBSC4101-3
MS14101-4	RBSC4101-4
MS14101-5	RBSC4101-5
MS14101-6	RBSC4101-6
MS14101-7	RBSC4101-7
MS14101-8	RBSC4101-8
MS14101-9	RBSC4101-9
MS14101-10	RBSC4101-10
MS14101-12	RBSC4101-12
MS14101-14	RBSC4101-14
MS14101-16	RBSC4101-16
MS14103-3	RBSC4103-3
MS14103-4	RBSC4103-4
MS14103-5	RBSC4103-5
MS14103-6	RBSC4103-6
MS14103-7	RBSC4103-7
MS14103-8	RBSC4103-8
MS14103-9	RBSC4103-9
MS14103-10	RBSC4103-10
MS14103-12	RBSC4103-12
MS14103-14	RBSC4103-14
MS14103-16	RBSC4103-16



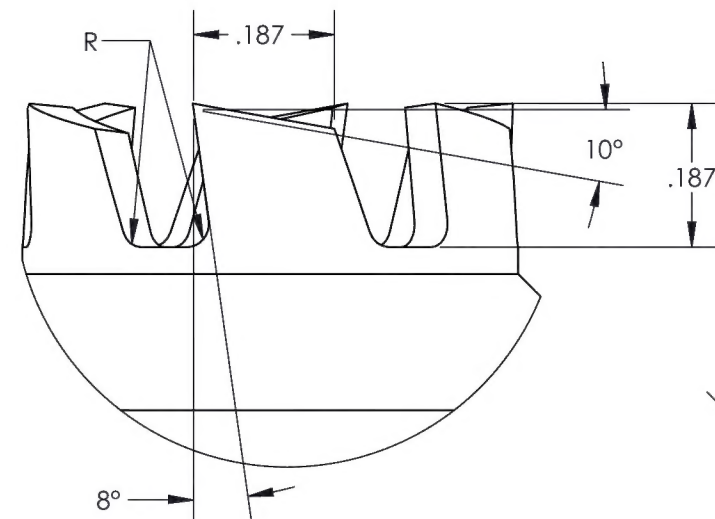
-3
SECTION A-A

DART AEROSPACE	
TITLE DRILL PRESS BEARING CUTTER FOR MS14101 & MS14103	
DWG NO.	SEE TABLE
MAT'L	DRAWN BY: GILBERT
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	APPROVED <i>D Weil</i>
.XXX ± .005	HEAT
.XX ± .01	TREAT
.X ± .1	FINISH
ANGLES ± 5°	SPEC
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	USED ON MODEL
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	212-310-701-103
SCALE 1:1	DATE 5/21/2013
SHEET 1 OF 3	

ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
			-1	1	CUTTER	0-1 DRILL ROD	SEE CHART	2
			-3	1	ARBOR	4140 Q & T	SEE CHART	3

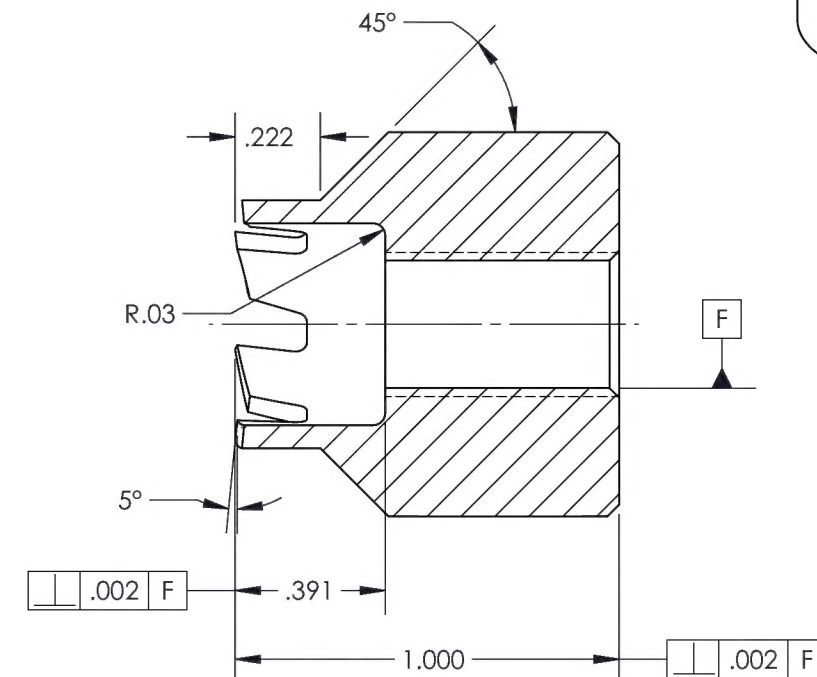
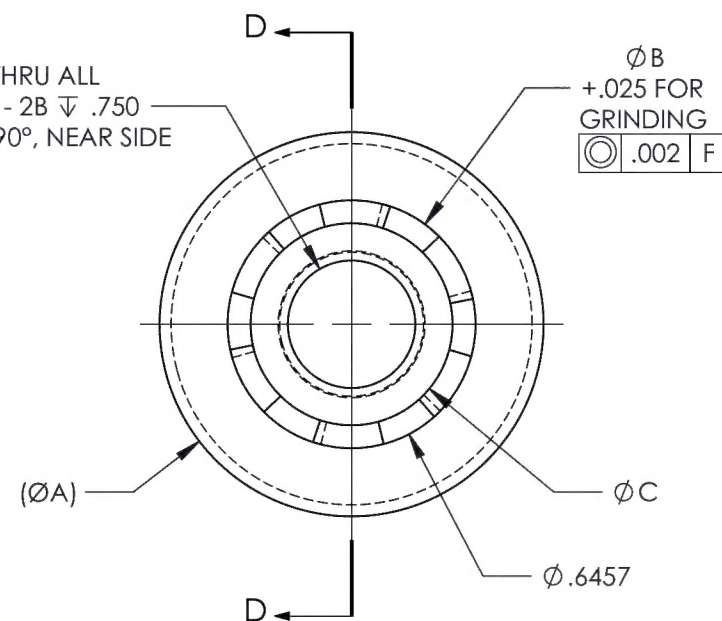
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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
6	15-0030	-1 ADDED ALL NEW TOOL NUMBERS AND UPDATED TABLE. DELETED TABLE COLUMNS D, E, F, MATREIAL AND BEARING O.D. ADDED COLUMN G AND #OF TEETH COLUMNS.	2/12/2015	RJC	JAG

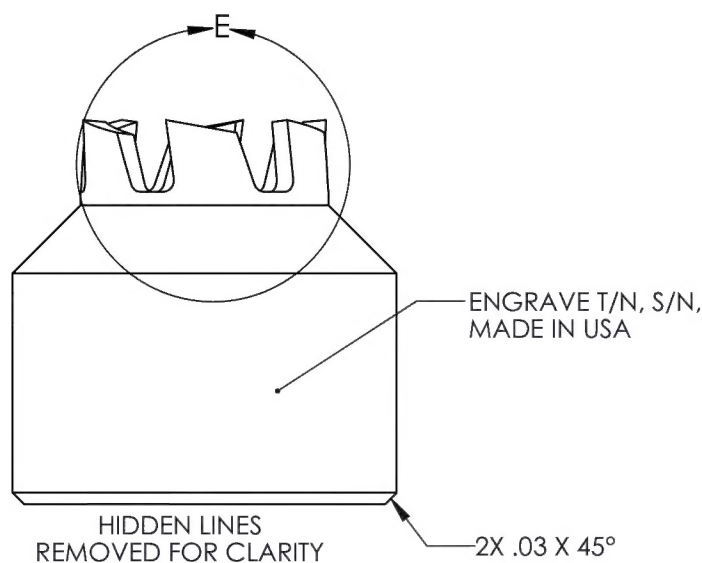
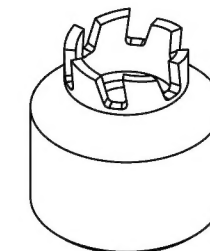


DETAIL E
SCALE 4 : 1
TYP. TOOTH
EQUALLY SPACED

Ø .332 THRU ALL
3/8-24 UNF - 2B ∇ .750
✓ Ø .382 X 90°, NEAR SIDE



SECTION D-D



①
CUTTER

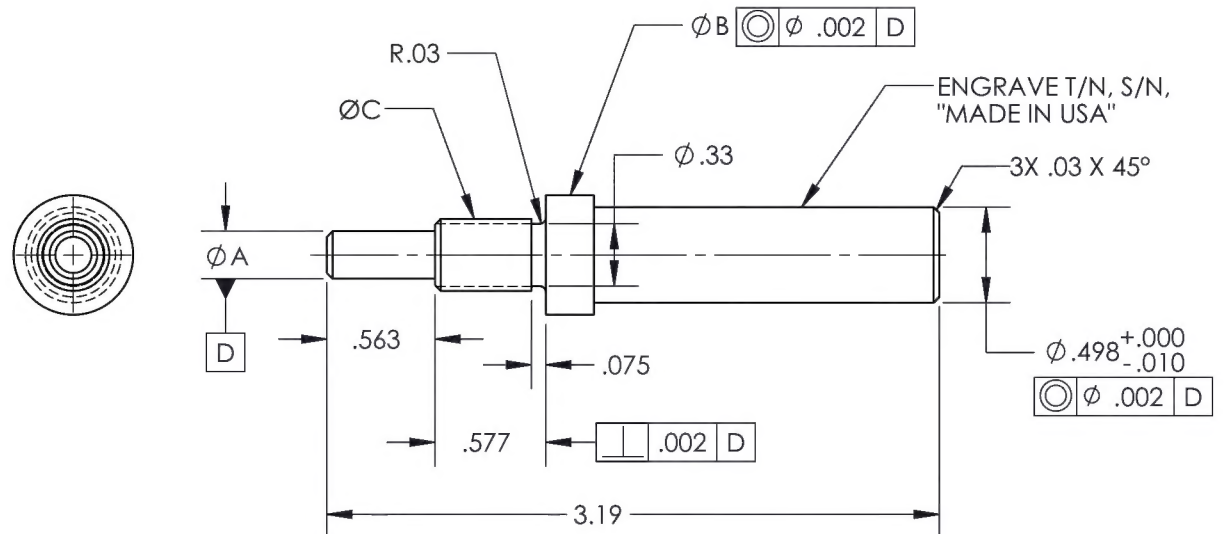
TOOL #	(ØA)	ØB +.0000 -.0020	ØC +.0000 - .0050	# OF TEETH	G THREAD
RBSC4101-3	(Ø1.000)	Ø.5520	Ø.4320	6	3/8-24
RBSC4101-4	(Ø1.000)	Ø.6457	Ø.5257	6	3/8-24
RBSC4101-5	(Ø1.000)	Ø.7395	Ø.6195	6	3/8-24
RBSC4101-6	(Ø1.000)	Ø.8020	Ø.6820	8	1/2-20
RBSC4101-7	(Ø1.000)	Ø.8957	Ø.7757	8	1/2-20
RBSC4101-8	(Ø1.125)	Ø.9895	Ø.8695	8	5/8-18
RBSC4101-9	(Ø1.375)	Ø1.0832	Ø.9632	10	5/8-18
RBSC4101-10	(Ø1.375)	Ø1.1770	Ø1.0570	10	3/4-16
RBSC4101-12	(Ø1.625)	Ø1.4270	Ø1.3070	12	7/8-14
RBSC4101-14	(Ø1.750)	Ø1.5520	Ø1.4320	14	1-12
RBSC4101-16	(Ø2.000)	Ø1.7395	Ø1.6195	16	1-1/8-12
RBSC4103-3	(Ø1.000)	Ø.6145	Ø.4945	6	3/8-24
RBSC4103-4	(Ø1.000)	Ø.6145	Ø.4945	6	3/8-24
RBSC4103-5	(Ø1.000)	Ø.6770	Ø.5570	6	3/8-24
RBSC4103-6	(Ø1.000)	Ø.8020	Ø.6820	8	1/2-20
RBSC4103-7	(Ø1.125)	Ø.9270	Ø.8070	8	1/2-20
RBSC4103-7A	(Ø1.125)	Ø.8957	Ø.7751	8	1/2-20
RBSC4103-8	(Ø1.125)	Ø.9895	Ø.8695	8	5/8-18
RBSC4103-9	(Ø1.250)	Ø1.1145	Ø.9945	10	5/8-18
RBSC4103-10	(Ø1.375)	Ø1.1770	Ø1.0570	10	3/4-16
RBSC4103-12	(Ø1.500)	Ø1.3645	Ø1.2445	12	7/8-14
RBSC4101-14	(Ø1.750)	Ø1.6145	Ø1.4945	14	1-12
RBSC4103-16	(Ø2.250)	Ø2.1145	Ø1.9945	18	1-1/8-12

DART AEROSPACE	
TITLE DRILL PRESS BEARING CUTTER FOR MS14101 & MS14103	
DWG NO.	REV 6
SEE TABLE -1	
MAT'L 0-1 DRILL ROD	DRAWN BY: GILBERT
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	APPROVED <i>D. Weil</i>
.XXX ± .005	HEAT TREAT HRC 55-60
.XX ± .01	FINISH BLACK OXIDE
.X ± .1	SPEC
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	USED ON MODEL
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	212-310-701-103
SCALE 2:1	DATE 5/21/2013
SHEET 2 OF 3	

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
4		CH'D -3 C-BORE DEPTH FROM .438 TO VARIABLE C; A2 THREAD DEPTH FROM 1.125 TO .50 +C.	10/12/09	WP	DW
6	15-0030	-3 ADDED ALL NEW TOOL NUMBERS AND UPDATED TABLE. DELETED TABLE COLUMNS BEARING #, ARBOR TYPE, ØA1, ØA2, ØB C-BORE, C AND MATERIAL. ADDED COLUMN ØA, ØB AND C THREAD COLUMNS.	2/12/2015	RJC	JAG

TOOL #	ØA +.000 -.002	ØB +.000 -.010	C THREAD
RBSC4101-3	Ø.188	Ø.498	3/8-24
RBSC4101-4	Ø.248	Ø.498	3/8-24
RBSC4101-5	Ø.311	Ø.498	3/8-24
RBSC4101-6	Ø.373	Ø.750	1/2-20
RBSC4101-7	Ø.436	Ø.750	1/2-20
RBSC4101-8	Ø.498	Ø.875	5/8-18
RBSC4101-9	Ø.561	Ø.875	5/8-18
RBSC4101-10	Ø.623	Ø1.000	3/4-16
RBSC4101-12	Ø.748	Ø1.125	7/8-14
RBSC4101-14	Ø.873	Ø1.250	1-12
RBSC4101-16	Ø.998	Ø1.375	1-1/8-12
RBSC4103-3	Ø.188	Ø.498	3/8-24
RBSC4103-4	Ø.248	Ø.498	3/8-24
RBSC4103-5	Ø.311	Ø.498	3/8-24
RBSC4103-6	Ø.373	Ø.750	1/2-20
RBSC4103-7	Ø.436	Ø.750	1/2-20
RBSC4103-7A	Ø.436	Ø.750	1/2-20
RBSC4103-8	Ø.498	Ø.875	5/8-18
RBSC4103-9	Ø.561	Ø.875	5/8-18
RBSC4103-10	Ø.623	Ø1.000	3/4-16
RBSC4103-12	Ø.748	Ø1.125	7/8-14
RBSC4103-14	Ø.873	Ø1.250	1-12
RBSC4103-16	Ø.998	Ø1.375	1-1/8-12



(-3)

ARBOR

DART AEROSPACE	
TITLE DRILL PRESS BEARING CUTTER FOR MS14101 & MS14103	
DWG NO. SEE TABLE-3	REV 6
MAT'L 4140 Q & T	DRAWN BY: GILBERT
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	APPROVED <i>D Weil</i>
.XXX ± .005 .XX ± .01 .X ± .1	HEAT TREAT FINISH BLACK OXIDE
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	SPEC
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	USED ON MODEL 212-310-701-103
SCALE 1:1	DATE 5/21/2013
SHEET 3 OF 3	